DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-002678
Date Inspected: 16-May-2008

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Japan Steel Works, Ltd.

OSM Arrival Time: 830
OSM Departure Time: 1830
Location: Muroran, Japan

CWI Name: C. Fu-Kuan, M. Ashadi

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Tower, Jacking and Deviation Saddles

Summary of Items Observed:
On this date OSM Quality Assurance (QA) Representative Daniel L. Reyes observed the following activities relative to this project. The following was observed:

At the start of the shift, this QA inspector observed the Japan Steel Works, Ltd. personnel, Koyanagi-Kiyotaka and Ohta-Yoshihiro, performing the assembly fit-up, alignment and tack welding of the rib plates identified as 1-5, 1-6, 1-7 and 1-8. The weld inspection task was performed by Intertek Testing Services (ITS) Quality Control (QC) Inspectors Chung Fu-Kuan and Mahkmud Ashadi. The minimum preheat of 160 degrees Celsius was verified by QC inspector Mr. Ashadi prior to the tack welding which was performed by JSW welding personnel Ohta-Yoshihiro, ID 08-2017 utilizing the Shielded Metal Arc Welding (SMAW) process as per the Welding Procedure Specification (WPS) SJ-3011-11. The WPS was also used by the QC inspectors as a reference during the QC verification of the Alternating Current (AC) welding parameters. The tack welding was performed in the horizontal (2G) position, utilizing a 4.8 mm electrode and the vertical (3G) position, which utilized a 4.0 mm electrode.

Later in the shift this QA inspector observed, at random intervals, the QC inspectors performing QC verification of the welding parameters, the minimum preheat and maximum interpass temperatures. See Weld Joints in Progress Inspected on page two (2) of this report regarding to QA verification of the welding parameters recorded during this shift on this date.

QA Observation Summary
This QA inspector randomly observed the in process Shielded Metal Arc Welding (SMAW) for the tack welding

of the structural Steel components for the West Deviation Saddles identified as W2E1. This QA inspector noted that it appeared the approved and latest revised WPS's were posted at the appropriate welding station and that each approved welder was entered in the latest revised Welding Personnel Log issued by Japan Steel Works, Ltd. The welding parameters, preheat and interpass temperatures were verified by this QA inspector utilizing a Fluke 337 clamp meter for the electrical welding parameters and Tempilstik temperature indicators for the preheat temperatures. The filler metal utilized by the JSW welding personnel was also verified. The QC inspectors, Chung Fu-Kuan and Mukhmud Ashadi appeared to perform the visual weld examinations, monitoring of the welding and the verification of the welding parameters as per the contract documents. The tack welding and inspection was not completed during this shift and appeared to be in general compliance with the contract documents.

The calibration dates of the measuring instruments utilized by the QC inspectors, the clamp amp/volt meter and the digital surface thermometer, were previously verified by this QA inspector.

Item	Weld Identification	Applicable WPS	CWI Name	Amperage	Voltage	TravelSpeed	Preheat Temp	Remarks
1	W2E1, E1Y-5V	SJ-3011-11	C. Fu-Kuan	150 AC	22.5 AC	68 mm/m	160 Degrees C.	Ohta-Yoshihiro
2	W2E1, E1Y-8L	SJ-3011-11	M. Ashadi	250 AC	23.5 AC	142 mm/m	160 Degrees C.	Ohta-Yoshihiro

Summary of Conversations:

There were no pertinent conversations relative to this project on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Venkatesh Iyer, (858) 967-6363, who represents the Office of Structural Materials for your project.

Inspected By:	Reyes,Danny	Quality Assurance Inspector
Reviewed By:	Lanz,Joe	QA Reviewer